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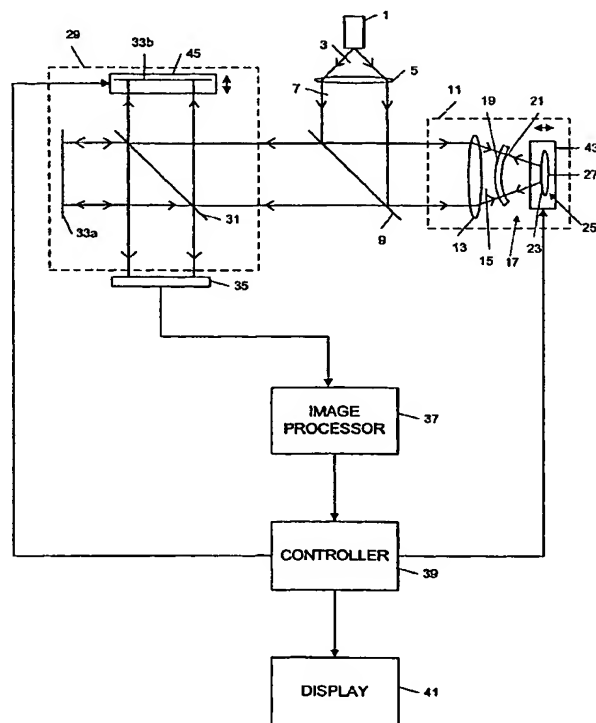
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(54) Title: SURFACE PROFILING METHOD AND APPARATUS



(57) Abstract: There is described a surface
profiling apparatus in which light from a
broadband light source (1) is directed to
an interference zone along first and second
light paths, the first light path including
the non-planar sample surface (23) and
the second light path including a reference
surface (21). The light travelling along
the first light path comprises a sample light
beam having wavefronts which vary along
the direction of propagation. The sample
surface (23) is moved through the sample
light beam so that at different positions of
the sample surface along the direction of
propagation, different regions of the sample
surface (23) substantially match a wavefront
of the sample light beam. As this movement
of the sample surface (23) causes a variation
in the optical path lengths of the first and
second light paths, the apparatus includes
means for compensating for differences
between the optical path lengths so that
light from portions of the sample surface
(23) which substantially match a wavefront
of the sample light beam and light from
corresponding portions of the reference
surface (21) produce an interference pattern
in the interference zone.

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